

10/7/2006 37

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(FILE 'HOME' ENTERED AT 16:41:33 ON 21 SEP 2006)

FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, LIFESCI' ENTERED AT 16:46:55 ON
21 SEP 2006

L1 30 S RABBIT(3A) (ALPHA OR BETA) (3A) MYOSIN(W) HEAVY (W) CHAIN (5A) PROMOT
L2 217932 S TRANSGEN?(5A) (MOUSE OR MICE OR ANIMAL OR MAMMAL OR PIG OR BOV
L3 12 S L1 AND L2
L4 10 DUP REM L3 (2 DUPLICATES REMOVED)
L5 1098 S (ALPHA OR BETA) (3A) MYOSIN(W) HEAVY (W) CHAIN (5A) PROMOTER
L6 10 S L2(P)L4
L7 402 S L2(S)L5

=> d au ti so pi ab 1-10 14

L4 ANSWER 1 OF 10 MEDLINE on STN DUPLICATE 1
AU Nishizawa Takao; Vatner Stephen F; Hong Chull; Shen You-Tang; Hardt Stefan
E; Robbins Jeffrey; Ishikawa Yoshihiro; Sadoshima Junichi; Vatner Dorothy
E
TI Overexpressed cardiac Gsalpha in rabbits.
SO Journal of molecular and cellular cardiology, (2006 Jul) Vol. 41, No. 1,
pp. 44-50. Electronic Publication: 2006-05-05.
Journal code: 0262322. ISSN: 0022-2828.
AB We overexpressed cardiac Gsalpha in rabbits using the
beta-myosin heavy chain
promoter. Gsalpha protein levels in the heart were increased
3-fold by Western blotting in both juvenile (3-4 months), adult (8-10
months), and older (11-16 months) rabbits, compared with wild type (WT)
littermates. In transgenic (TG) rabbits, baseline
levels of heart rate were elevated, $P<0.05$ (268+/-17 vs. 209+/-15
beats/min), as well as left ventricular (LV) contractility (LV dP/dt
5475+/-482 vs. 3740+/-246 mm Hg/s). These values and LV ejection fraction
remained significantly elevated in older TG rabbits (11-16 months).
However, maximal levels of LV dP/dt and heart rate with a high dose of
isoproterenol (0.4 microg/kg/min) were similar in adult TG and WT rabbits.
In isolated myocytes from the LV of adult rabbits, baseline percent
contraction was increased, $P<0.05$, in TG (11.2+/-0.5%) compared to WT
(9.3+/-0.5%), while maximal responses to isoproterenol (100 nM) were
similar in adult TG (16.2+/-0.5%) and WT myocytes (15.6+/-0.4%). Although
TG mice with overexpressed cardiac Gsalpha develop cardiomyopathy at 8-12
months of age, even at 16 months of age, there was no evidence of
cardiomyopathy either in terms of LV function or histology in TG rabbits.
In addition, Gsalpha was elevated in the LV of adult (8-10 months old) TG
rabbits compared to WT, but not in juvenile (3-5 months old) TG rabbits.
Although both TG mice and rabbits with overexpressed cardiac Gsalpha
exhibited enhanced heart rate and contractility, the TG rabbit does not
develop cardiomyopathy, potentially due to a compensatory increase in
Gsalpha.

L4 ANSWER 2 OF 10 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AU Umeda, Patrick K. [Reprint Author]; Shiau, Regina P. [Reprint Author];
Pearson, Georgia [Reprint Author]; Beatrous, Stephanie [Reprint Author];
Caulfield, James B. [Reprint Author]
TI Cardiomyopathy due to antisense transcription from the beta myosin heavy
chain promoter.
SO Circulation, (October 28 2003) Vol. 108, No. 17 Supplement, pp. IV-117.
print.
Meeting Info.: American Heart Association Scientific Sessions 2003.
Orlando, FL, USA. November 09-12, 2003. American Heart Association.
ISSN: 0009-7322 (ISSN print).

L4 ANSWER 3 OF 10 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

AU Umeda, Patrick K. [Reprint Author]; Shiao, Regina P.; Pearson, Georgia; Kojima, Chinatsu; Caulfield, James B.
TI Cardiomyopathic alterations in heart failure involve divergent transcription from the beta myosin heavy chain promoter.
SO FASEB Journal, (March 2003) Vol. 17, No. 4-5, pp. Abstract No. 165.12. <http://www.fasebj.org/>. e-file.
Meeting Info.: FASEB Meeting on Experimental Biology: Translating the Genome. San Diego, CA, USA. April 11-15, 2003. FASEB.
ISSN: 0892-6638 (ISSN print).
AB Transgenic mice containing the rabbit beta myosin heavy chain (MHC) promoter exhibit the structural and functional alterations of heart failure. These phenotypic changes are mediated solely by the promoter sequences. To determine if the cardiomyopathy involves RNAs transcribed from the rabbit promoter transgene, we examined RNAs from transgenic mouse hearts by RT-PCR. cDNAs were synthesized with either sense or antisense primers for the rabbit promoter. Subsequent PCR analysis revealed an RNA that is transcribed from the rabbit promoter only in the antisense orientation. In one transgenic line, where parental imprinting and altered DNA methylation of the transgene abrogates the cardiomyopathy in some animals, the "antisense" RNA is expressed only in animals with the cardiomyopathy. Furthermore, PCR analyses with primers spanning the rabbit promoter suggest that the "antisense" RNA is initiated from a region between -150 and -200 from the capsite. Deleting the latter region abolished expression of the "antisense" RNA as well as the cardiomyopathy. These results indicate that an "antisense" RNA from the rabbit promoter mediates the cardiomyopathy. This transgenic model predicts that a similar RNA is involved in clinical heart failure. RT-PCR analyses confirm the presence of such a transcript in failing human hearts. The divergent transcription of a latent gene encoded by the beta MHC promoter may play an important role in the pathogenesis of cardiac failure. NIH HL66911.

L4 ANSWER 4 OF 10 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AU Umeda, P. K. [Reprint author]; Norton, P. [Reprint author]; Shiao, R. P. [Reprint author]; Caulfield, J. B. [Reprint author]
TI Epigenetic mechanisms in cardiac failure.
SO FASEB Journal, (March 15, 1999) Vol. 13, No. 5 PART 2, pp. A769. print.
Meeting Info.: Annual Meeting of the Professional Research Scientists on Experimental Biology 99. Washington, D.C., USA. April 17-21, 1999.
Federation of American Societies for Experimental Biology.
CODEN: FAJOEC. ISSN: 0892-6638.

L4 ANSWER 5 OF 10 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN
AU Umeda P K (Reprint); Norton P; Shiao R P; Caulfield J B
TI Cardiomyopathy in rabbit beta myosin heavy chain promoter transgenic mice involves the methylation of the transgene
SO CIRCULATION, (21 OCT 1997) Vol. 96, No. 8, Supp. [S], pp. 1005-1005.
ISSN: 0009-7322.

L4 ANSWER 6 OF 10 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
AU Umeda, Patrick K.; Norton, Paul; Shiao, Regina P.; Caulfield, James B.
TI Cardiomyopathy in rabbit beta myosin heavy chain promoter transgenic mice involves the methylation of the transgene.
SO Circulation, (10/21/97) Vol. 96, No. 8 SUPPL., pp. I181-I182. print.
Meeting Info.: 70th Scientific Sessions of the American Heart Association. Orlando, Florida, USA. November 9-12, 1997.
CODEN: CIRCAZ. ISSN: 0009-7322.

L4 ANSWER 7 OF 10 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

AU Umeda, Patrick K.; Norton, Paul; Urthaler, Ferdinand; Shiao, Regina P.; Caulfield, James B.

TI Arrhythmias and cardiac failure in rabbit beta myosin heavy chain promoter transgenic mice.

SO Journal of Molecular and Cellular Cardiology, (1997) Vol. 29, No. 6, pp. A168.

Meeting Info.: XIX Annual Meeting of the International Society for Heart Research (American Section) on Cardiovascular Injury, Repair and Adaptation. Vancouver, British Columbia. July 23-27, 1997.

CODEN: JMCDAY. ISSN: 0022-2828.

L4 ANSWER 8 OF 10 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

AU Umeda, Patrick K. [Reprint author]; Norton, Paul; Shiao, Regina P.; Perry, Gilbert J.; Urthaler, Ferdinand; Caulfield, James B.

TI Sequences of the rabbit beta myosin heavy chain promoter produce a condition of chronic heart failure in transgenic mice.

SO Circulation, (1996) Vol. 94, No. 8 SUPPL., pp. I408.

Meeting Info.: 69th Scientific Sessions of the American Heart Association. New Orleans, Louisiana, USA. November 10-13, 1996.

CODEN: CIRCAZ. ISSN: 0009-7322.

L4 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

AU Urthaler, Ferdinand; Walker, Alfred A.; Caulfield, James B.; Umeda, Patrick K.

TI Altered contractility in a transgenic mouse containing the rabbit beta-myosin heavy chain gene promoter.

SO Journal of Molecular and Cellular Cardiology, (1996) Vol. 28, No. 6, pp. A160.

Meeting Info.: XVIIIth Annual Meeting of the International Society for Heart Research, North American Section. Chicago, Illinois, USA. June 9-13, 1996.

CODEN: JMCDAY. ISSN: 0022-2828.

L4 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2006 ACS on STN

AU Hansen, Ekkehard; Fernandes, Kenneth; Goldspink, Geoffrey; Butterworth, Peter; Umeda, Patrick K.; Chang, Kin Chow

TI Strong expression of foreign genes following direct injection into fish muscle

SO FEBS Letters (1991), 290(1-2), 73-6

CODEN: FEBLAL; ISSN: 0014-5793

AB Direct injection of genes into fish muscle *in vivo* is reported here for the first time. Plasmids used contain either SV40 early promoter, rabbit beta.-cardiac myosin heavy chain promoter, human MxA promoter or an artificial promoter, fused to a chloramphenicol acetyltransferase (CAT) or beta-galactosidase reporter gene. CAT assays revealed that most gene constructs were highly expressed. Histochem. anal. showed that beta-galactosidase was strongly expressed at the site of injection within muscle fibers. This method provides an excellent system for testing expression of gene constructs, including those of mammalian origin, in fish muscle *in vivo* and has the potential for fish vaccination.